



# Pallet Changers for **OKUMA**

Increase productivity and eliminate idle time by changing parts **OUTSIDE** the VMC on a Pallet Changer while the spindle is cutting.



*A4020SD shown on Okuma Genos M560-V*

Retrofits to **NEW** or **EXISTING**  
**OKUMA** Vertical Machining Centers

## AUTOMATIC 2-PALLET SYSTEMS

# It all comes down to... "Is your VMC spindle running?"



- Load, unload, inspect parts and set up jobs while alternate pallet is in the machine.
- Reduce set up time on repeat jobs by dedicating tooling onto pallets.
- Exchange pallet in seconds with +/- .0001" (.0025 mm) repeatability.
- Pallets easily interchanged between machines or departments.

- Two pallets on one shuttle
- Heavy/large workpieces easily loaded outside the machine.
- Up to 8000 lb (3636 kg) capacity on largest model with part weight evenly distributed
- Jobs can be easily interrupted for emergency.
- Increase machine and operator productivity.
- Equipped with Mitsubishi controls.

OKUMA	MIDACO	Pallet Size - inches (mm)
Genos M460-VE	A3018SDM460VE	30" x 17" (762 x 431.8 mm)
Genos M560-V	A4020SDM560V	40" x 19" (1016 x 482.6 mm)
	AS5020SDCELC	50" x 19" (1270 x 482.6 mm)
Genos M660-V	A6025SDCELC	60" x 24" (1524 x 609.6 mm)
Millac 44V II	A2216SDCELC	22" x 15" (558.8 x 381 mm)
Millac 561V II	A4020SDCELC	40" x 19" (1016 x 482.6 mm)
Millac 761V II	A6030DCELC	60" x 29" (1524 x 736.6 mm)
Millac 852V II	A8030SDCELC	80" x 29" (2032 x 736.6 mm)
	A12030SDCELC	120" x 29" (3048 x 736.6 mm)
Millac 1052V II	A8440SDCELC	84" x 39" (2133 x 990 mm)
	A12040SDCELC	120" x 39" (3048 x 990 mm)
MA 550V	AS5020SDCELC	50" x 19" (1270 x 482.6 mm)
MA 650V	A6025SDCELC	60" x 24" (1524 x 609.6 mm)
MB 66V	A6025SDCELCMB66VA	60" x 24" (1524 x 609.6 mm)

## FULLY INTEGRATED WITH VMC



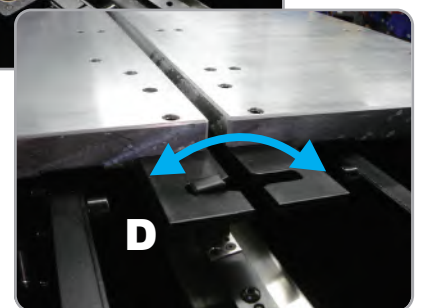
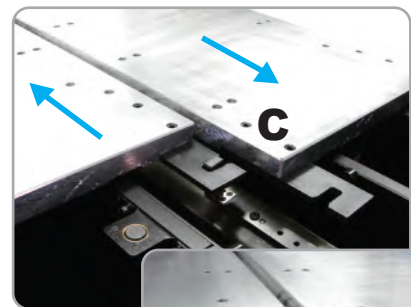
### Keypad (B) Provides:

- Password protected access
- Parameters page access
- Manual functions access
- Current I/O status
- Diagnostic pages

### Electric Servo Drive Provides Proven Reliability

MIDACO's precision engineered Servo Drive assembly (C) extends into the machining center, tilts and engages with the pallet coupler (D) to remove the pallet from the machining center. The Servo Drive then delivers the next pallet into the machine in seconds.

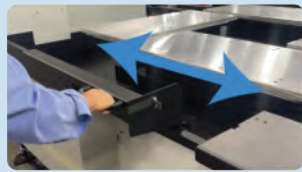
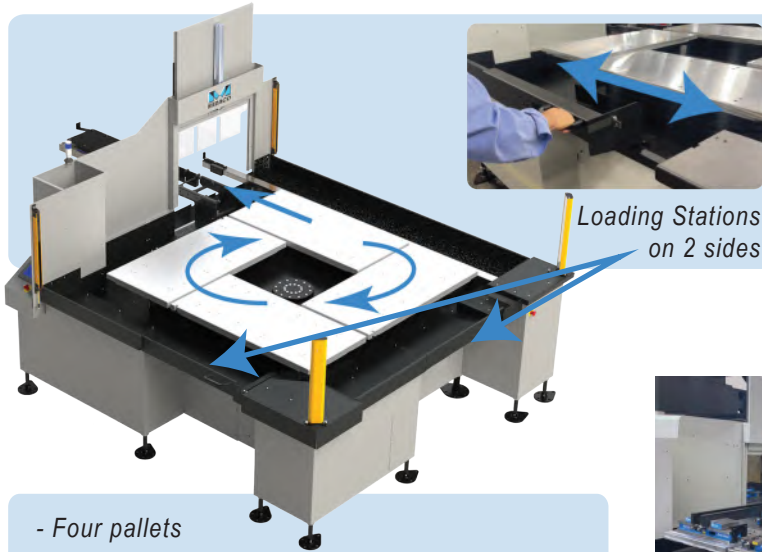
- MIDACO's PLC is fully integrated with the machine using two M-functions.
- While the alternate pallet is in the machine, the operator sets up the next pallet. Once ready, the operator pushes the "Pallet Ready" button (A) and walks away to attend other activities. When the pallet in the machine is complete, the next pallet shuttles in automatically.
- The PLC allows the operator to program pallet acceleration and deceleration according to the weight of the fixture to optimize performance.



## AUTOMATIC 4-PALLET SYSTEMS

### One Shuttle - One Receiver - FOUR Pallets

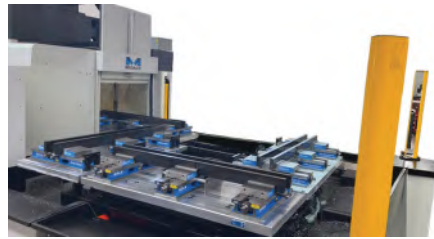
Ready to feed your VMC for multiple hours of unattended machining.



Loading Stations on 2 sides



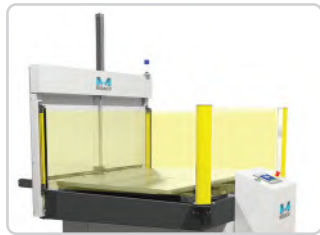
Shown with custom Loading Station extension



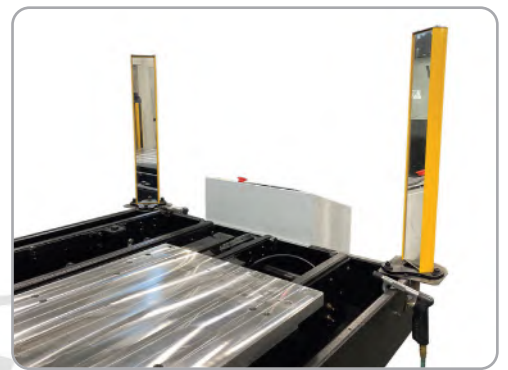
- Four pallets
- One cast iron receiver
- Up to 1000 lb (454 kg) capacity
- One shuttle with 360 degrees rotation
- Convenient loading stations on 2 sides
- Light curtain guarding
- NO overhead obstruction for crane loading

OKUMA	MIDACO	Pallet Size - inches (mm)
Genos M460-VE	A3018SDR4	30" x 17" (762 x 431.8 mm)
Genos M560-V	A4020SDR4	40" x 19" (1016 x 482.6 mm)

## LIGHT CURTAIN GUARDING



- All models of the Automatic Pallet Changer System are available with **Light Curtain Guarding** meeting international CE and UKCA compliance.
- With 3-sided guarding via a light emitter, mirrors and sensors, a pallet change will not occur if the invisible light beams surrounding the shuttle system are breached.



**Since 1969, MIDACO has been a leader in providing innovative and quality solutions to improve manufacturing efficiency for companies worldwide.**

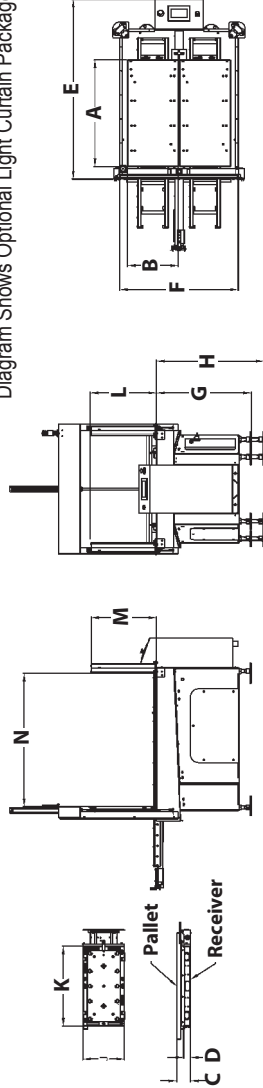
# AUTOMATIC PALLET SYSTEM SPECIFICATIONS

MIDACO pallet systems are designed for machines with stationary guarding. Some machines require options or customization. Contact your sales representative to confirm model and specifications for all applications.

Automatic	A2215SD & A2216SD	A2416SD & AS2716SD	A3016SD	A3018SD & A3020SD	A4020SD	A4025SD	AS4525SD	AS5020SD	AS5025SD	A5025SD	A6025SD, A6030SD, A6432SD	A6040SD & A6440SD
Specifications	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm
Clamping Force*	4500	2041.2	5200	2358.7	5200	2358.7	7500	3401.9	7500	3401.9	15400	6985.3
Receiver Weight	95	43.1	95-107	43.1-48.5	223	101.2	239	108.4	243	110.2	588	266.7
Pallet Thickness	1	25.4	1-1.25	25.4-31.8	1.5	38.1	1.5	38.1	2	50.8	2	50.8
Pallet Load Cap**	250-500	113.4-226.8	250-500	113.4-226.8	1000†	453.6	1000†	453.6	2000	907.2	4000	1814.4
A (Pallet X Dim)	22	558.8	24-28	609.6-711.2	30	762.0	40	1016.0	45	1143.0	50	1270.0
B (Pallet Y Dim)	14-15	355.6-381	14-15	355.6-381	15.5	393.7	17-19	431.8-482.6	19	482.6	24	609.6
C	4-13	104.9	4-13	104.9-111.1	5-17	131.3	5-17	131.3	5-17	131.3	5-17	131.3
D	2.5	63.5	2.5	63.5	2.56	65.0	2.56	65.0	2.56	65.0	2.56	65.0
E	47.1	1196.3	53	1346.2	57.4	1458.0	68	1727.2	77.4	1966.0	77.4	1966.0
F (Min Height)	35.2	894.1	35.2	894.1	36.2	919.5	44.2	1122.7	44.2	1122.7	54.2	1376.7
G (Max Height)	34.8	883.9	34.8	883.9	38	965.2	38	965.2	38	965.2	38	965.2
H (Max Height)	44.8	1137.9	44.8	1137.9	49	1244.6	49	1244.6	49	1244.6	49	1244.6
J (Receiver)	13	330.2	13	330.2	15.5	393.7	15.5	393.7	15.5	393.7	15.5	393.7
K (Receiver)	18	457.2	18	457.2	30	762.0	30	762.0	30	762.0	30	762.0
L (Door Opening)	16	406.4	16	406.4	20	508.0	20	508.0	20	508.0	20	508.0
M (LC Height)	24	609.6	24	609.6	24	609.6	24	609.6	24	609.6	24	609.6
N (LC Opening)	30	762.0	36	914.4	39.9	1013.5	39.9	1014.0	49.9	1267.5	59.9	1521.5

Automatic	A8030SD & A8432SD	A8035SD & A8440SD	A12030SD & A12040SD	A15032SD
Specifications	lbs. / in	kg / mm	lbs. / in	kg / mm
Clamping Force*	20500	9298.6	20500	9298.6
Receiver Weight	1298	588.8	1400	635.0
Pallet Thickness	2.5	63.5	2.5	63.5
Pallet Load Cap**	8000	3628.7	8000	3628.7
A (Pallet X Dim)	80-84	2032-2133.6	80-84	2032-2133.6
B (Pallet Y Dim)	29-31	736.6-787.4	34-35	876.3-990.6
C	8-12	206.2	8-12	206.2
D	4-24	107.7	4-24	107.7
E	120.5	3060.7	120.5	3060.7
F	73.2	1859.3	85	2159.0
G (Min Height)	45	1143.0	45	1143.0
H (Max Height)	57-65	1448-1651	57-65	1448-1651
J (Receiver)	25.5	647.7	25.5	647.7
K (Receiver)	75	1905.0	75	1905.0
L (Door Opening)	32	812.8	32	812.8
M (LC Height)	36.3	922.0	36.3	922.0
N (LC Opening)	99.2	2519.7	97.7	2481.6

Diagram Shows Optional Light Curtain Package



**NOTE: Pallet load capacity is based on the weight of the parts evenly distributed on pallet.**



\*At 100PSI (6.9 bar) \*\*At 120PSI (8.2 bar) with weight evenly distributed on pallets  
 † Optional 2000 lb (907kg) Pallet Load Capacity with weight evenly distributed on pallets.  
 Patented. Specifications subject to change without notice.

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**MIDACO CORPORATION**  
 2000 Touhy Avenue  
 Elk Grove Village, IL 60007 USA  
 phone: 847.593.8420  
 fax: 847.593.8451  
 email: sales@midaco-corp.com